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36822 7590 10/01/2009 GORDON & JACOBSON, P.C. 60 LONG RIDGE ROAD SUITE 407 STAMFORD, CT 06902			EXAMINER GILLIS, BRIAN J	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALEX CONTA and SRIHARI VARADA

Appeal 2009-005685
Application 10/691,109
Technology Center 2400

Decided: October 1, 2009

Before JOSEPH F. RUGGIERO, MARC S. HOFF, and KEVIN F.
TURNER, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the final rejection of claims 1-9 and 14-40. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

Appellants' disclosure relates to methods and apparatus for tunneling different types of packets over different types of networks (Spec. p. 1, ll. 7-10). The instant claims are directed to implementing multiple tunneling protocols in a switch or router (Spec. p. 9, ll. 9-10).

Independent claim 1 is illustrative of the invention and reads as follows:

1. A uniform method for implementing multiple tunneling protocols in a switch or router having a plurality of input interfaces and a plurality of output interfaces, comprising:
 - a) providing a finite set of tunnel interfaces, each tunnel interface characterized by a set of tunnel specific attributes, a first of said tunnel interfaces being associated with one tunneling protocol and a second of said tunnel interfaces being associated with a second tunneling protocol different from said first tunneling protocol;
 - b) mapping one of the input interfaces to one of said tunnel interfaces; and
 - c) mapping said one of said tunnel interfaces to one of the output interfaces,whereby multiple tunneling protocols are implemented in a uniform way.

App. Br. 27 Claims App'x.

The Examiner relies on the following prior art references to show unpatentability:

Shrader	US 5,864,666	Jan. 26, 1999
Rekhter	US 6,339,595 B1	Jan. 15, 2002

Tsirtsis	US 2004/0148428 A1	Jul. 29, 2004
Miller	US 6,873,627 B1	Mar. 29, 2005
Hauck	US 6,977,932 B1	Dec. 20, 2005

D.J. Greaves, *CBG Orangeath: Automated Design of Data Transfer Protocols*, Jan. 2003, <http://www.cl.cam.ac.uk/~djg11/wwwwhpr/dsprotocol.html> [hereinafter Greaves].

The Examiner references Appellants' discussion of the prior art in the Specification (Spec. p. 1, l. 22 – p. 2, l. 2; p. 7, ll. 5-10) as admitted prior art [hereinafter APA-I], discussed below, and also references label mapping discussed in the Specification (*id.* at p. 6, l. 21 – p. 7, l. 3) as admitted prior art [hereinafter APA-II].

Claims 31, 32, and 36 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Shrader; claims 1-8, 15, 22, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hauck and Greaves; claims 9 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shrader and Hauck; claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Shrader, Hauck, and APA-I; claims 16-21, 23, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hauck, Greaves, and Miller; claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hauck, Greaves, Miller, and Rekhter; claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hauck, Greaves, and Shrader; claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hauck, Greaves, Shrader, and Tsirtsis; claims 29 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hauck, Greaves, and APA-II; claims 33 and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shrader and

Miller; claim 34 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Shrader, Miller, and Rekhter; claim 37 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Shrader and Tsirtsis; and claims 39 and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shrader and APA-II.

ISSUES

Appellants argue that claim 31 is directed to an application programming interface (API) for implementing different tunneling protocols in a switch or router, and Shrader provides for management of tunnels having the same tunneling protocol (App. Br. 12). Appellants also argue that Greaves is directed to non-analogous art and teaches away from the claimed invention such that the rejection is improper (App. Br. 15-17). Appellants also argue that neither Shrader nor Hauck teaches or suggests implementing a plurality of tunneling protocols and that the rejection based on Hauck and Shrader is therefore not well founded (App. Br. 19-20).

The Examiner finds that Shrader shows multiple tunnel definitions defining different tunnels may be loaded and the system is capable of using any set of tunnel and filter rules with minimal adaptation (Ans. 20-21). The Examiner also finds that the combination of Hauck and Greaves teaches or suggests all of the elements of the rejected claims and that both Hauck and Greaves are analogous art because both are directed to data transfer (Ans. 21-22).

Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made

but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Thus, the issues arising from the respective positions of Appellants and the Examiner are:

1) Have Appellants shown reversible error in that Shrader fails to teach a plurality of different tunneling protocols as recited in the independent claim 31?

2) Have Appellants shown reversible error in that Hauck and Greaves fail to teach or suggest association of tunneling interfaces with different tunneling protocols as recited in the independent claims 1, 15, and 22?

3) Have Appellants shown reversible error in that Shrader and Hauck fail to teach or suggest associating interfaces with multiple tunneling protocols as recited in the independent claim 9?

4) Have Appellants shown reversible error in that the APA-I, APA-II, Miller, Rekhter, and Tsirtsis references fail to cure the alleged deficiencies of Shrader, Hauck, and Greaves with respect to the independent claims such that there is reversible error in the rejection of the dependent claims?

FINDINGS OF FACT

1. The instant Specification details methods and apparatus for tunneling different types of packets over different types of networks (Spec. p. 1, ll. 7-10). The instant claims are directed to implementing multiple tunneling protocols in a switch or router (Spec. p. 9, ll. 9-10).

2. Shrader is directed to the web-based administration of IP tunneling between firewalls (Abstract). Individual tunnels can be configured and filter

rules applicable to selected tunnels can be easily discerned through the use of a graphical interface (Shrader, col. 1, l. 43 – col. 2, l. 9).

3. Shrader discloses that its administration system has application to “any set of tunnel and filter rules which may be imposed between secure and nonsecure networks,” but does not disclose the management of multiple tunneling protocols (Shrader, col. 16, ll. 44-52).

4. Hauck discloses a system and method for network tunneling utilizing micro-flow state information. On ingress, a particular network tunnel is selected for a micro-flow, as well as an egress port, based on a tunnel identifier (Hauck, col. 3, ll. 29-45).

5. Greaves broadly describes network terminology by indicating that a protocol operates over an interface that each interface operates its protocol without reference to the other interfaces and that for each interface there is an associated protocol (Greaves, p. 1, ¶¶ 4, 8).

PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988).

“[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim,

for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). When the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

ANALYSIS

Rejection under 35 U.S.C. § 102(e) over Shrader

Claims 31, 32, and 36

With respect to independent claim 31, Appellants argue that claim 31 is directed to an API for implementing different tunneling protocols in a switch or router, while Shrader provides for management of tunnels having the same tunneling protocol (App. Br. 12). The Examiner finds that Shrader shows multiple tunnel definitions defining different tunnels may be loaded and the system is capable of using any set of tunnel and filter rules with minimal adaptation (Ans. 20-21). We agree with Appellants.

Shrader does disclose that multiple tunneling protocols may be managed through its system, but such implantation is serial, i.e. one set of protocols at a time (FF 3). The clear intent of Shrader is to manage tunnels operating under a single set of protocols and not multiple tunneling protocols. Shrader simply does not disclose a system “configurable to

implement any one of said plurality of different tunneling protocols” as recited in independent claim 31. As such, we find that Shrader does not anticipate claim 31 and the rejection thereof is in error. Similarly, we find the rejection of claims 32 and 36, dependent on claim 31, to also have been made in error.

*Rejection under 35 U.S.C. § 103(a) over Hauck and Greaves
Claims 1-8, 15, 22, and 25*

Appellants argue that Greaves is directed to non-analogous art and teaches away from the claimed invention such that the rejection is improper (App. Br. 15-17). The Examiner finds that the combination of Hauck and Greaves teaches or suggests all of the elements of the rejected claims and that both Hauck and Greaves are analogous art because both are directed to data transfer (Ans. 21-22).

We need not decide whether Hauck and Greaves are analogous art because we do not find Greaves to be pertinent to the instant claims and Hauck. The generality of Greaves cannot be applied for what the Examiner has applied it towards. Even if Greaves were taken at face value, such that for each interface there is an associated protocol (FF 5), there is nothing recited in Greaves that details that each interface has a *different* protocol. Even if the Examiner were to argue that the disclosure of Greaves renders it obvious to associate different protocols with interfaces, the Examiner has supplied no rationale why different protocols would be selected. Thus, we find that Greaves cannot be applied for what the Examiner has asserted that reference teaches.

As such, since the Examiner has acknowledged that Hauck fails to disclose tunnel interfaces associated with different tunneling protocols, as recited in different manners in independent claims 1, 15, and 22, and Greaves does not teach or suggest the same, we find that the rejection of independent claims 1, 15, and 22 was made in error. Likewise, by virtue of their dependence, we find the rejection of claims 2-8 and 25 to have been made in error also.

*Rejection under 35 U.S.C. § 103(a) over Shrader and Hauck
Claims 9 and 35*

Appellants argue that neither Shrader nor Hauck teaches or suggests implementing a plurality of tunneling protocols and that the rejection is therefore not well founded (App. Br. 19-20). The Examiner finds that Shrader teaches multiple tunnel definitions and their use (Ans. 22). However, as we have found *supra*, Shrader does not disclose the management of multiple tunneling protocols, where claim 9 recites, in part, “implementing multiple tunneling protocols in a switch or router.” As such, we find that neither Hauck nor Shrader teaches or suggest this aspect of claim 9 and that claim 9 was rejected in error, since the Examiner has acknowledged that Hauck fails to disclose tunnel interfaces associated with different tunneling protocols. By virtue of its dependence on claim 31, we find that claim 35 was also improperly rejected.

*Rejections under 35 U.S.C. § 103(a) over Shrader, Hauck, Greaves, APA-I,
APA-II, Miller, Rekhter, and Tsirtsis*

Claims 14, 16-21, 23, 24, 26-30, 33, 34, and 37-40

Appellants argue that the dependent claims recited in the above-cited rejections all depend from independent claims which they argued were rejected in error, and thus allowable by virtue of their dependence (App. Br. 20-26). We find that the secondary references fail to cure the deficiencies of the base references discussed *supra*. As such, we find the rejections of these latter claims to have been made in error as well.

CONCLUSION

The decision of the Examiner rejecting claims 31, 32, and 36 as being anticipated by Shrader; claims 1-8, 15, 22, and 25 as being unpatentable over Hauck and Greaves; claims 9 and 35 as being unpatentable over Shrader and Hauck; claim 14 as being unpatentable over Shrader, Hauck, and APA-I; claims 16-21, 23, and 28 as being unpatentable over Hauck, Greaves, and Miller; claim 24 as being unpatentable over Hauck, Greaves, Miller, and Rekhter; claim 26 as being unpatentable over Hauck, Greaves, and Shrader; claim 27 as being unpatentable over Hauck, Greaves, Shrader, and Tsirtsis; claims 29 and 30 as being unpatentable over Hauck, Greaves, and APA-II; claims 33 and 38 as being unpatentable over Shrader and Miller; claim 34 as being unpatentable over Shrader, Miller, and Rekhter; claim 37 as being unpatentable over Shrader and Tsirtsis; and claims 39 and 40 as being unpatentable over Shrader and APA-II, is reversed.

DECISION

The Examiner's rejection of claims 1-9 and 14-40 before us on appeal is REVERSED.

REVERSED

KMF

cc:

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